Improving Survival from Sudden Cardiac Arrest in Central Ohio

Michael T. Cudnik MD, MPH
Assistant Professor
Department of Emergency Medicine
The Ohio State University Medical Center
Objectives

• Describe current initiatives in Columbus, OH
• Describe future initiatives for Columbus and Central Ohio
Disclosures

• Research funding from American Heart Association
  – Scientist Development Grant #0835250N
• No financial conflicts to disclose
Survival from OHCA has increased since 2004

- Survival to Discharge 2004
  - 4%
- Survival to Discharge 2009
  - 10%
Take Heart Columbus

- Developed in 2004
  - Sayre, White
- Collaboration with 3 other sites
  - Austin, TX
  - St. Cloud, MN
  - Amoka County, MN
- Multifaceted approach
  - Public Education, Bystander CPR
  - AED Deployment
  - EMS Training, Quality Improvement
  - Post-Resuscitation Care
Post Resuscitation Care

• OSUMC
  – Initiated Therapeutic Hypothermia Protocol in 2007
• Initially for OHCA VF/Pulseless VT
  – Now encouraged to implement for ALL Cardiac Arrests with ROSC
TH by EMS

• Columbus Fire Department
  – Initiated Therapeutic Hypothermia Protocol in 2008

• Goal is to improve outcomes, increase the number of patients who receive TH
  – All receiving hospitals in Columbus now have TH capabilities and/or protocols
Unanswered Questions

- Use of TH for IHCA?
- Consistency of Eligible Patients receiving TH?
- Use of TH in smaller hospitals outside of city of Columbus?
- Use of TH Cost Effective?
Collaboration with OHA

• Central Ohio Quality Collaborative
  – Captures data on AMI, CHF, Pneumonia patients in 17 hospital in Central Ohio

• Capture data on OHCA and IHCA Patients
  – Use of TH as well as PCI in SCA patients
Proposed Project

• Assess the Variability in use of TH and PCI in IHCA and OHCA
• Describe the Outcomes of those who do and do not receive TH and PCI
• Test the cost effectiveness of TH and PCI in IHCA and OHCA
Goals

• Develop Clinical Best Practices to be shared across Central Ohio
• Develop a Statewide Cardiac Arrest Network
• Evidence Based Guidelines in Development of Resuscitation Centers
How does this impact Cardiologists and Cardiovascular Specialists?

- Ensure patients are receiving the most effective therapy consistently
- QA initiatives improve outcomes for other conditions
  - Likely will do the same for SCA
- Develop protocols and flow sheets to assist in standardizing care
  - Ease of application
  - Improve Outcomes